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10/040,654

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Victor N. Vu

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09/15/2006

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Seventh Floor

12400 Wilshire Boulevard

Los Angeles, CA 90025-1030

EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT

PAPER NUMBER

2195

DATE MAILED: 09/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/040,654

Applicant(s)

VU, VICTOR N.

Examiner

Lewis A. Bullock, Jr.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-10,12-15,17,18 and 20-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,3-10,12-15,17,18 and 20-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-10, 12-15, 17, 18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over "SOFA/DCUP: Architecture for Component Trading and Dynamic Updating" by PLASIL et al. in view of "OSGI Service Platform" by OSGI.

As to claim 1, PLASIL teaches a computer implemented method for dynamically composing and maintaining an indication over a computer architecture comprising: receiving an indication to dynamically integrate a component into an executing application (via the primary application using an embedded template to determine that a component needs to be loaded) (pg. 45, SOFA Component Model), wherein the component includes a new component to replace an existing component (via updating a component) (pg. 45, SOFA Component Model / pg. 48, Component Updating); loading the component (via dynamically updating the component) (pg. 46, DCUP Architecture Overview; pg. 46-47, Structure of a DCUP Component); and linking the component to the application by obtaining an integration interface associated with the component, the integration interface providing methods (via a parent component / application exporting the interface of the child component to access its services) (pg. 45, SOFA Component Model, "; pg. 48, Component Updating) (pg. 47, Interconnecting DCUP Components, wherein an access to the component C from a higher level component has to be

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mediated via P (P has to explicitly export (part of) C's interface). However, PLASIL does not teach the various methods of the integration interface.

OSGI teaches the integration interface comprising methods for managing the component, invoking an initialize method to initialize the component (start method for a bundle) (pg. 26, section 2.7.6); and invoking a replace method to transition an existing state of the existing component into the new component (updating method for updating bundles) (pg. 27, section 2.7.8). Therefore, it would be obvious to one of ordinary skill in the art to combine the teachings of PLASIL with the teachings of OSGI in order to facilitate the management of a bundles, i.e. components, lifecycle (pg. 24, section 2.7).

As to claim 10, PLASIL teaches an apparatus comprising: a client computer system (user node); and a server computer system (provider / producer node) coupled with the client computer system, the server computer system including: a component loader to load requested components of a plurality of components into an application (see figure 2; pg. 46, DCUP Architecture Overview), the plurality of components corresponding to an application (via the template having a reference to the component), each implementing an integration interface (a set of methods / interface) (via updating a component) (pg. 45, SOFA Component Model / pg. 48, Component Updating) providing methods (via a parent component / application exporting the interface of the child component to access its services) (pg. 45, SOFA Component Model, "; pg. 48, Component Updating) (pg. 47, Interconnecting DCUP Components, wherein an access to the component C from a higher level component has to be mediated via P (P has to

explicitly export (part of) C's interface) and a messaging mechanisms for external entities to communicate with the loaded components (via nodes having points such that nodes communicating with other nodes for components) (see figure 2 and table 1). However, PLASIL does not teach the various methods of the integration interface.

OSGI teaches the integration interface comprising methods for managing the component including: an initialize method to transition a given component into a state to operate (start method for a bundle) (pg. 26, section 2.7.6); a stop method to transition the given component into a destroy state (stop method for a bundle) (pg. 27, section 2.7.7); an interface clearinghouse to store and manage interfaces corresponding to the loaded components (pg. 29, Persistent Storage; (via a context interface) (pg. 25, section 2.7.4; pgs. 16-17, section 2.4.1) and invoking a replace method of the integration interface, the replace method to transition an existing state of the existing component into the new component (updating method for updating bundles) (pg. 27, section 2.7.8). Therefore, it would be obvious to one of ordinary skill in the art to combine the teachings of PLASIL with the teachings of OSGI in order to facilitate the management of a bundles, i.e. components, lifecycle (pg. 24, section 2.7).

As to claim 14, refer to claim 10 for rejection. However, claim 14 further alludes to a communications bus established after at least one call to a publish method and a retrieve method of the integration interface. OSGI teaches the importing and exporting of bundles via method calls (pgs. 18-19, section 2.4.3-2.4.4). It would be obvious that

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since the communication is over a network that a bus is used and that the publish method is the exporting function and retrieving method is the importing function.

As to claims 3 and 4, OSGI teaches the importing and exporting of bundles via method calls (pgs. 18-19, section 2.4.3-2.4.4). It would be obvious that the publish method is the exporting function and retrieving method is the importing function. OSGI also teaches storing the one or more interfaces in an interface clearinghouse (pg. 29, Persistent Storage; (via a context interface) (pg. 25, section 2.7.4; pgs. 16-17, section 2.4.1).

As to claim 5, OSGI teaches invoking a stop method of the integration interface when the component is ready to be shut down (stop method for a bundle) (pg. 27, section 2.7.7).

As to claim 6, PLASIL teaches the application resides in a network, and the loading of the component comprises retrieving the component from a member in the network (network node structure) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claim 7, PLASIL teaches the member comprises a peer (network node structure) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claim 8, PLASIL teaches the peer comprises another component loader in the network (network node structure wherein a particular peer node also has a loader for components) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claim 9, PLASIL teaches the member comprises a host in the network (network node structure) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claim 12, PLASIL teaches the server computer system comprises a replace state to replace an old component with a new component by transitioning an existing state of the old component with the new component (via Update function) (pg. 48, Component Updating; pg. 45, SOFA Component Model).

As to claim 13, PLASIL teaches the application resides in a network, and the loading of the component comprises retrieving the component from a member in the network (network node structure) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claim 15, PLASIL teaches the communication bus is to facilitate inter-component communication (network node structure) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claim 17, PLASIL teaches the application resides in a network, and the loading of the component comprises retrieving the component from a member in the network (network node structure) (pg. 46, figure 2, and table 1) (see also, pg 50, Conclusion).

As to claims 18 and 20-22, reference is made to a machine readable medium that corresponds to the method of claims 1, 3, 4 and 6 and is therefore met by the rejection of claims 1, 3, 4 and 6 above.

### ***Response to Arguments***

3. Applicant's arguments filed June 26, 2006 have been fully considered but they are not persuasive. Applicant argued that the combination does not teach linking the component to the application by obtaining an integration interface associated with the component, wherein the integration interface provides methods for managing the component and invoking an initialize method to initialize the component and invoking a replace method to transition the component to a new state thereby being a new component. The examiner disagrees. Plasil teaches a component by virtual of its template can be run as an application such that the instance is called a primary component wherein it can reference secondary components that are nested within it (pg. 45, 2.1 SOFA Component Model). Plasil also teaches that services provided by a component are directly accessible from its parent component only (pg. 47, Interconnecting DCUP Components) wherein an access to the component C from a



higher level component has to be mediated via P (P has to explicitly export (part of) C's interface. Therefore, the parent application has to export the interface to the component to access its services. Thus, Plasil teaches linking the component to the application by obtaining an integration interface associated with the component. As outlined in the rejection, Plasil does not allude to the component services that the interface allows one to invoke. The examiner has relied upon OSGI as teaching of components methods for managing a component which include an initialize method and a replace method (pg. 26 and 27). Therefore, the combination meets the limitations of the claims and therefore the rejection is maintained as detailed above.

#### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

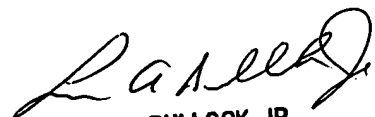
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571)

272-3759. The examiner can normally be reached on Monday-Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 9, 2006

  
LEWIS A. BULLOCK, JR.  
PRIMARY EXAMINER